**TESTIMONY OF LEE SMITH**

**ON BEHALF OF THE BLACKSTONE GAS COMPANY**

**Q. What is your name and business address?**

A. My name is Lee Smith, and I work for La Capra Associates, 333 Washington St., Boston, Massachusetts.

**Q. What is your occupational experience?**

A. I am Senior Economist at La Capra Associates. I have been with this energy planning and regulatory economics firm for 17 years. Prior to my employment at La Capra Associates, I was Director of Rates and Research, in charge of gas, electric, and water rates, at the Massachusetts Department of Public Utilities. Prior to that period, I taught economics at the college level.

**Q. Are there any attachments to this testimony?**

A. Yes. Attached at the end of my testimony is a summary of my qualifications and experience, as Exhibit 1. I have sponsored a number of exhibits, including revised rates for Blackstone Gas Company.

**Q. What is the purpose of your testimony?**

A. The purpose of my testimony is present the basis for a requested rate increase for the Blackstone Gas Company, and to sponsor revised base rates for the Company.

**Q. Have you testified previously, Ms. Smith?**

A. Yes. I have presented testimony on cost of service and rates behalf of numerous gas and electric utilities and regulatory bodies in Massachusetts, Vermont, Maine, New Hampshire, Pennsylvania, Maryland, Arizona, Kansas, South Dakota, Wyoming, and the District of

Columbia.

**Q. Will you please summarize your testimony.**

A. I am testifying on behalf of the Blackstone Gas Company ("Company"), a small local gas distribution utility located in the southeastern part of the state. La Capra Associates has assisted the Company with various rate and gas supply matters over a number of years. The Company has not increased its rates since 1996, and is not currently earning any return on its rate base. In fact, the proforma cost of service study shows a negative rate of return. The Company is filing new rate schedules for its existing classes. It is also submitting a revised Cost of Gas Adjustment Clause that includes working capital on gas costs. I recommend that this clause be adopted at the same date as the new base rates. The base rate filing does not include gas working capital. These two simultaneous changes will strip the last remaining gas costs from base rates. Blackstone will file two peak CGAs, one to be charged before the change in base rates and one to be charged after the change.

**Q. Please describe the Blackstone Gas Company.**

A. Blackstone is the smallest investor-owned utility in the state. It serves approximately 1000 primarily residential customers in the town of Blackstone and part of the neighboring town of Bellingham. The president of the Company, James Wojcik, purchased the Company in 1986. Mr. Wojcik had previously worked for the Company and continues to perform operation and maintenance work in addition to performing as Company president. The small size of the Company has advantages and disadvantages. The disadvantages are that the Company lacks the administrative and financial capability that larger companies have. It also means that expenses that seem relatively small are quite large relative to its total revenues. For instance, using a witness to estimate cost of capital would have increased the cost of this rate case by 25% to 33%. As a result, we have tried to keep this rate case

simple. The major advantage is that the Company is very close to and responsive to its customers; it is a part of the community in a way that larger utilities are not. This means that it is very sensitive to the needs of its customers and the town. When gas costs rose dramatically this past winter, Blackstone made budget billing available to any interested customers at any point during the winter. Blackstone's borrowing costs are relatively high, because of its small size, and the "transactions costs" associated with borrowing are a burden. As a result, Blackstone's expansion has been primarily self-financed.

**Q. When did the Company last file a rate case?**

A. The Company's last rate case was filed in 1996.

**Q. Why is the Company filing at this time?**

The Company cannot afford to continue at its current level of rates and revenues. In 2000, the Company's Annual Return demonstrated negative income. At current rates, Company will experience a revenue deficiency of $219,080 as shown on Exhibit 2, Schedule 1.

**Q. What are the major changes that have occurred since the Company's last rate case?**

A. The Company has invested $358,920 in gas mains, increasing the net book value by 42.8%. This investment included capitalized expenses associated with this installation. This has resulted more from replacing of old mains than in adding new lines. The net book value of transportation equipment will increase by $90,000, primarily as a result of replacing two very old trucks. Operating and maintenance expense has increased by 37.7%, reflecting additional employees, increases in benefits, increases in property taxes, and other items.

**Q. What is the nature of the Company's equity, and how does that equity grow?**

A. The Company's stock is not publicly traded. Basically, the equity of the Company is the value of its rate base less its long-term debt. The equity has grown as the owner has used the Company's earnings directly to invest in plant and has borrowed on a short term basis when revenues have been inadequate to make necessary investments. Rather than paying out dividends, revenue above basic expenses has been spent on the Company, enabling it to replace old plant and install new mains.

**Q. Please describe the filed case.**

A. The test year was calendar year 2000. The case reflects a normal level of expense and a return on equity of 11%. We weather normalized gas costs and also gas revenues, so that the remaining deficiency reflects only base rate costs. We have made several proforma adjustments to wages, and calculated income taxes for this level of income. The Company has only three rate classes, R-1, R-2, and G-1. There is also a school which has served under a special contract, reflecting the fact that almost no incremental plant was needed to serve this customer and that the school had originally been served by a special gas supply contract dedicated to this customer. Subsequently, when the special gas supply ended and could not be replaced, a new contract was signed which charged the normal CGA, a customer charge and a delivery charge. This second contract significantly raised the total rate to this customer. Since the contract lapsed, Blackstone has continued to charge the customer at the contract rate, but is proposing to create a school rate class in this proceeding. We are also introducing low-income residential rates, in spite of some concern that Blackstone is a small town with a fairly low average income. We are requesting that any revenue shortfall above that projected be deferred for future rate collection.

**REVENUE REQUIREMENTS**

**Q. What is the amount of increase requested in this case?**

A. We are requesting an increase of $219,090, or 18.3%, of total revenues, as presented in Exhibit 2.

**Q. What is the cause of the increase in costs?**

A. There is no single cause. Basic expenses, including labor, benefits, and property taxes have increased. As noted earlier, the Company has replaced most of its old cast iron and bare steel distribution mains. This is in response to a state directive. The Company is investing in transportation equipment to replace trucks which are 23 and 24 years old

**Q. Please describe the weather normalization of sales.**

We have weather normalized base revenues, normalized gas costs, and removed an amount of gas revenues that would fully recover normal gas costs. All weather normalization calculations are found in Exhibit 3. The temperature data comes from the nearest national weather station, at West Medway, Massachusetts. The twenty year average heating degree days totaled 6,644. The test year, at 6,365 degree days, was slightly warmer than normal, necessitating an increase in revenues to reflect normal conditions. All of the Company's rate classes are weather-sensitive, and their revenues have been normalized. Since the test year was only 279 degree days warmer than normal, the total weather adjustments were small.

The weather normalization of sales by class was done as follows. The base use, determined by multiplying the number of customers by the average of the current July and August per customer, was subtracted from each month other than July and August to produce the heat sensitive load. The heat sensitive load, divided by the actual degree days,

produced a factor reflecting use per degree days. This factor was multiplied by the normal degree days to estimate normal sales in MCF. This is the same approach that is utilized in the Company's CGA filings.

**Q. How did you estimate normal weather gas costs?**

A. Gas costs have been so volatile in the last year that we have performed a rather simple normalization of costs, designed to estimate what test year costs would have been for normal year sendout, and also to estimate what supplemental gas costs would have been. Actual test year gas costs were increased or decreased by the incremental or decremental monthly weather volume adjustment multiplied by the actual supplemental (described on the bills as excess) gas cost charged by month during the test year. Supplemental gas costs included gas costs that were booked in the test year at the excess gas cost rate, plus the peak reservation charge, plus incremental or decremental costs incurred because of the weather normalization. This weather normalization does not reflect an attempt to project accurately normal gas costs based on prices that may exist in 2001. Gas futures have been so variable that there is little likelihood of such a projection being accurate.

I should reiterate that the projection of normal year gas costs has no impact on the base rate increase requested, because total gas revenues are set equal to gas costs. The major element that would change with a different normal gas cost would be the anticipated percentage change in total bills; if gas costs were projected at a higher level, the percentage increase to total bills would be smaller.

**Q. How did you estimate normal weather gas revenues?**

A. Since our intent was to determine the total revenue shortfall associated with base costs and revenues, we needed to remove gas revenues that were exactly equal to normalized gas

costs. In other words, we assumed that the test year CGAs were perfectly reconciled to test year gas costs, with no reconciliation and no payment lag. However, this total was allocated to rate classes based on actual CGAs.

**Q. Why did you even calculate normal weather gas revenues and gas costs, since they end up offsetting each other?**

A. Although in total gas revenues and gas costs were equalized, in order that they neither increase nor decrease the total revenue deficiency, they do not equal on a class by class basis. In other words, some classes may pay more and others may pay less than their allocated share of gas costs. The Department has in the past mandated the inclusion of gas costs and revenues, so that base rates can correct for any misallocations created by the CGA. Some companies have moved away from this problem by creating class specific CGAs. For Blackstone, we believe this is too complicated, particularly given its simple and somewhat unique gas contract. In addition, Blackstone's CGA allocates costs in a manner very similar to the allocation in the cost of service study.

**Q. How were weather normalized base revenues calculated from weather normalized sales?**

A. The calculations associated with the weather normalization of revenues is presented in Exhibit 3, Pages 3 and 4 . Rate R-2 has two blocks, while Rate G-1 has three blocks, although the initial block is very small. The weather adjustment volumes in the peak season were charged at the tailblock rates. The split between the blocks was more complicated for the G-1 customers. For actual monthly usage greater than the first block, we estimated how many of the bills would end in the second block, with the third block containing the remainder of the billing determinants. For instance, it was assumed that the second tailblock billing determinants were 90 % of the block size times the number of

customers, rather than 100% in the coldest months,while smaller percentages ended in the second tailblock during the less cold winter months.

**Q. Please describe the normalization of labor expense.**

A. A number of company employees received a rate increase in the middle of the test year. We determined what the additional wage increment would be for a full year, and this dollar amount is shown as an adjustment.

**Q. How was the inflation adjustment made?**

A. Blackstone's test year operating and maintenance expenses, reduced by the separately adjusted labor expenses, were increased by the actual increase in the GDP chain-type price index from mid 1999 through the end of 2000. The projected increase was 2.982%.

**Q. Why is it appropriate to allow an increase for labor, when there are no union contracts supporting known increases?**

A. The Company has no union employees, yet it normally increases its employees' wages on a regular basis. We do not think the Department's standards were intended to deny wage increases to Companies that are not unionized. The Department's standards for non-union increase require that there be a commitment to make such increases, that there is a basis for the level of increase proposed, and that the wages be reasonable. The Company has increased its employees' wages every 2 to 3 years. The average increase over the past 5 years has been approximately equal to the CPI changes. Finally, we note that the average wage level is low relative to other Companies.

**Q. Have you made an adjustment for uncollectible expense?**

A. Yes. Since the Company does not calculate uncollectible expense on a monthly basis, we

normalized this expense by calculating the average ratio of uncollectible expense to revenue over the previous two years. This was applied to weather normalized revenues to produce a normalized level of write-offs. This was $1,138 less than the actual test year write-off, so this is a negative adjustment, shown on Schedule 3 of Exhibit 2. This should produce a smaller total uncollectible than would a 13month average, if same were available, because uncollectibles have climbed recently as total bills increase as gas costs increased and the weather was colder than the previous winter.

**Q. What is the treatment of rate case expense in this case?**

A. We have estimated that total rate case expense will be $60,000. We have amortized this over five years. The average timespan between the Company's last four cases is close to five years.

**Q. How was rate base determined?**

A. Rate base includes the total book value of plant, less accumulated depreciation, less customer deposits, less reserve for deferred taxes, plus working capital. This is depicted in Exhibit 2. The only proforma addition to rate base is the cost of two trucks, which will replace fully depreciated equipment. The vehicles to be replaced are over twenty years old and can no longer be considered reliable.

**Q. How was working capital calculated?**

Working capital consists of 45/365 times residual operating and maintenance expense, as shown in Exhibit 2

The Company reads all meters monthly near the end of each month. Payment is normally received within 45 days after the end of the month. Gas bills are received within 10 - 15

days after the month of delivery. Some labor costs have been paid by the middle of the month being billed, and most other expenses are paid by the end of the month. This results in a lag from cost to revenue of approximately 45 days for operating and maintenance costs.

**Q. Please describe the Company's capital structure.**

A. The Company holds $290,821 of long-term debt. Total rate base is $1,603,449, of which 18% is debt and the remaining 82% is equity. The average cost of debt is currently 9%. The Company is too small to justify performing an independent analysis of return on equity. We are requesting a return on equity of 11%, based on recent awards in other jurisdictions. The cost of equity agreed to in the previous Settlement for purposes of calculating anything which required a rate of return was 11.5%. The overall weighted cost of capital is 10.6%. The capital structure is summarized on Exhibit 4.

**Q. Have you calculated income taxes consistent with the requested return?**

A. Yes, the income tax calculation is found in Exhibit 5. This reflect Blackstone's weighted average income tax rate, which is less than its incremental rate.

**RATE DESIGN**

**Q. Have you determined class revenue requirements on the basis of an allocated cost of service study?**

A. Yes, we performed an allocated cost of service study for the Company. The 2000 proforma costs, including weather normalized, proforma gas costs, were allocated among rate classes. Normalized gas revenues, equal to proforma gas costs, were subtracted from total revenues. The results produced normalized base revenue requirements by class,

which were compared to normalized base revenues. These calculations are shown in Exhibit 6.

**Q. Please describe Blackstone's gas supply.**

A. Blackstone has rights to move 518 MMBTU per day over the Tennessee Gas pipeline. The Tennessee MDQ is inadequate to supply its load on many winter days. Because of its load factor, it is not economic to acquire additional long-haul pipeline capacity. Also, because its volumes are so low, it is unable to market unneeded gas in order to improve its load factor. The Company's new contract is with Duke Energy. The contract provides for two types of gas delivery. The Base Supply provides up to 518 MMBtu per day, delivered via Blackstone's rights to move that amount on the Tennessee Gas Pipeline. The contract also provides for additional volumes of Peaking Service from November through March, of 500 MMBTu for 2000, which can be increased annually. This peaking gas is supplied via a backhaul, which does not require long-haul pipeline capacity. The new contract provides for a higher commodity charge for the "excess" or supplemental gas, and a peaking reservation fee. There is no reservation fee associated with t he base gas quantity.

**Q. What allocators were used in this study?**

A. The basic allocators were average number of customers, number of customers weighted by meter costs, weather normalized annual sales, peak month sales, and a proportional responsibility allocator for distribution plant.

**Q. How did you allocate gas costs in the cost of service study?**

A. As described earlier, we calculated gas costs for weather normalized sales based on the contracts and rates in effect during the test year. Most of Blackstone's gas came through the base portion of its contract. We allocated these gas costs on the basis of normal

sendout. The portion of gas costs resulting from the supplemental commodity and the peak reservation charge were allocated on peak month use.

**Q. What did the allocated cost of service study demonstrate?**

A. The deficiencies of the class varied around the system average from 15.5% for the residential heating class to 18.6% for the commercial class and 59.4% for the school. Until last year the school had been served on a special contract rate. The original contract had been based on a special gas supply streamed to the school, and on a base rate that was intended to collect incremental rather than embedded costs.

**Q. What are you recommending for class revenue changes?**

A. I am recommending that all classes receive the system rate of increase. The average required increase is hignormh enough so that I do not think it is advisable to increase some classes by more than the average. In addition, this has been a difficult year for gas customers, with the significant variations in gas costs that have occurred. Finally, there is some concern that the school could convert back to oil if gas costs increase too much. We have accordingly set base revenue targets for each class that will result in a 18.3% increase in total bills.

**Q. Please describe the changes in rates.**

A. We increased the customer charges by one dollar and fifty cents, to $9.50 for the residential class and $12.00 for G-1. We determined how much revenue this would produce from the test year number of customers, and then how much additional revenue was needed. Within each class, each block rate was increased by the same percentage.

**Q. Have you presented the rate design worksheets and the impacts on bills of the revised**

**rates?**

A. Yes. Exhibit 7 contains the rate design worksheets and demonstrates how the proposed rates produce the target revenues by class. Bill impacts are contained in Exhibit 8.

**Q. Why have you not disaggregated the commercial and industrial class?**

A. The Company has only about one hundred commercial customers, and the size and load factor differentials between them are small. They are basically all fairly small commercial establishments. Disaggregating the existing class by size and load factor would complicate billing substantially and probably require a new billing program. Cost differences between smaller and larger customers will be reflected in rates through the declining block rate which we are proposing.

**Q. Have you estimated how many Blackstone gas residential customers would likely to apply and qualify for a low-income rate?**

**A.** Yes. I have assumed that the Blackstone's experience with low income rates will be similar to North Attleboro's. We have had a great deal of difficulty in acquiring Blackstone specific data on low-income households. The only comprehensive town-wide census data that we have dates to 1990. At that time, Blackstone's average income level was very similar to North Attleboro. I have heard anecdotal information that suggests that Blackstone's income level may have regressed relative to North Attleboro, but I will not be able to confirm this until the 2000 census data is released. I have assumed that the proportion of residential customers by class that would go on discounted rates would be the same as the percentage experienced by North Attleboro. For the residential heating class that percentage is only 5%, whereas for the nonheating class it is only 0.28%, which is so small that we project zero nonheating subsidized customers.

**Q. Have you determined what would be required to introduce low-income residential rate classes?**

A. Yes. Based on the assumption described above regarding the number of residential customers, I have estimated the lost revenues that would result from a 25% discount to base rates. The discount was set at a relatively low level because Blackstone is a relatively poor community as well as being a very small company.[LEE, ANDY WAS WONDERING IF WE WANT TO SAY THIS ABOUT THE INCOME OF THE TOWN. THE 1990 CENSUS DATA SHOWED THAT IT WAS NOT ANY POORER THAN N. ATTLEBORO] This discount level will result in a rate decrease to low income customers as other customers receive an increase. I am also assuming that existing Blackstone personnel can handle application and certification of eligibility, so that I have not included any additional administrative costs associated with this program.

The rate was developed by setting the residential rate targets by applying the system average increase, discounting each charge by 25% for the subsidized rate, and assuming billing determinants based on the predicted enrollment in the rate. The nonsubsidized rates were increased until the revenue collected by both subsidized and nonsubsidized rates equalled the revenue target. The result is that $4,349 of revenue will be foregone due to the low income rate, if the North Attleboro experience applies to Blackstone. This does not raise the total revenue requirement, but it does increase the rate revenue targets and resulting rates of the nonsubsidized residential classes.

Offering this rate exposes Blackstone to considerable revenue uncertainty. If the enrollment on the rate were at a higher rate than North Attleboro has experienced, Blackstone could undercollect its revenue requirement by a significant amount. Blackstone is requesting that should the enrollment and revenue shortfall from the subsidized rate be

greater than projected, it be allowed to defer this undercollection until its next rate case.

**Q. Does that conclude your testimony?**

A. Yes, it does.